

Study about Health Consciousness and awareness of blood groups in the Selected Population of University of Sargodha, Pakistan

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Summary

This study has been carried out to determine distribution of various blood group types among the selected peoples of university of Sargodha (UOS). It was further aimed to assess the health consciousness of science students in the same University. Two independent surveys for blood group awareness and health consciousness consisting of questionnaire were carried out among the U.O.S premises. In the survey for blood group 645 subjects were taken, of whom 336(52%) and 309(48%) were male and female respectively.

The percentages of the blood groups A+, A-, B+, B-, AB+, AB-, O+, and O- were 12.24%, 2.48%, 26.35%, 3.10%, 5.11%, 1.7%, 18.29%, and 3.87% respectively. The distribution of blood group A+, A-, B+, B-, AB+, AB-, O+, O- in male was 12.20%, 3.57%, 27.97%, 3.27%, 5.35%, 2.08%, 18.10%, 3.86%, while in females it was 12.29%, 1.29%, 24.59%, 2.9%, 4.8%, 1.29%, 18.44%, 3.88% and it was also reported that 23.5% and 30.42% of male and female were unaware of their blood groups. It was concluded from the study that B+ was dominant while, AB- was rare blood group and most of the educated people were unaware of their blood group type. In the survey of health consciousness 70 subjects were taken from the department of Pharmacy, Medical College and Food & Science technology. They were asked for medical checkup, balanced diet and resting hours. It was found that despite being part of health savers community most of them were unconscious about their own health.

Key words: Health consciousness, blood group, selected population

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Introduction

People have always been fascinated by blood, ancient Egyptians bathed in it, Aristocrats drank it, authors and playwrights used it as a theme and modern humanity transfuses it(1). Blood is man's complete and unchangeable identity (2). The regulation of ABO blood group system is under the control of ABO gene expression (3). This system derives its importance from the fact that A and B are strongly antigenic and anti A and anti B occur naturally in the serum of persons

lacking the corresponding antigen. Research on ABO group system has been of immense interest, due to its medical importance in different diseases. The ABO blood group system is not only important in blood transfusion, cardiovascular diseases, organ transplantation, erythroblastosis in neonates but also one of the strongest predictors of national suicide rate and a genetic marker of obesity(4). The major blood groups of this systems are A, B, AB, and O. The A and B antigens are expressed on red blood cells (RBCs) and these antigens are inherited co dominantly over O. These antigens are complex oligosaccharides that differ in their terminal sugars (1). The genetic history of a person can be known by studying the blood groups (5).

the carbohydrate antigen A,B,O appear to be located on the long arm of the autosomal locus at chromosomes number 9, which constitute the four blood groups (6). All human populations share the same blood group systems; although they differ in the frequencies of specific types. The incidence of ABO and Rh groups varies very markedly in different part of the world and in different races. Even in Pakistan, there are some variations in different areas reflecting racial differences (13). The need for blood group frequency and prevalence studies is multipurpose, as besides their importance in evolution, their relation to disease and environment is being increasingly sought in modern medicine(14, 15)

Pakistan is a under developed country. There is a low literacy rate and most of people believe in supernatural things as a cause of ill health and therefore seek shamans and other alternate practioners. The people of Pakistan are suffering from political disputes, violence, terrorism, lawlessness, problems with safety and security which has lead towards economic problems rising poverty and on the top of that the significant economic disparity (7). The health care centers, 907 Mother and Child Health Centers, 552 Rural Health Centers and 289 TB Centers primarily run by provincial governments. There are 100131 doctors registered with the Medical Council and 18029 specialists. The government health care system has not been fully structured and is deficient (8). Health consciousness is the awareness of people about their health. Ones level of health consciousness comprise of three elements: self health awareness, personal responsibility, and health motivation. Balanced diet is the necessity of human body for optimum demand of energy (ATP's). Balanced diet is not only intake of food round the clock three times in a day. But it actually requires sufficient supply of bimolecular i.e. carbohydrates proteins and lipids. Unbalanced diet intake leads to malfunction of human body. High blood pressure, hypercholesterolemia, heart problems, diabetes, obesity are very common health problems in almost every age group. A physician mostly recommends patients of these problems to do exercise regularly. The daily routine of exercise should be followed for a normal healthy individual. A study has been carried out in Medical University in Bydgoszcz about the eating disorders among medical students that show that students have many nutritional habit faults (12).

The objective of this study was to assess distribution of blood groups types, awareness about blood group and health consciousness among the selected population of University of Sargodha, Sargodha Punjab, Pakistan. The motive of our research was to evaluate the health awareness among science students that will make them aware that it's their moral responsibility to have sense of healthy activities that will result in a healthy society as they being the future health savers.

Materials and methods

In the survey on blood group and its awareness, we randomly selected 645 male and female students from all the departments of UOS. To know their blood groups we asked the following questions from all the persons selected:

Q2: What is your blood group?

In the survey on health consciousness we also carried out another questionnaire

Q1: What is included in your diet?

Q2: Do you do exercise daily?

Q3: Do you undergo routine medical checkup?

Q4: What are your Resting hours?

Results

Distribution of blood groups

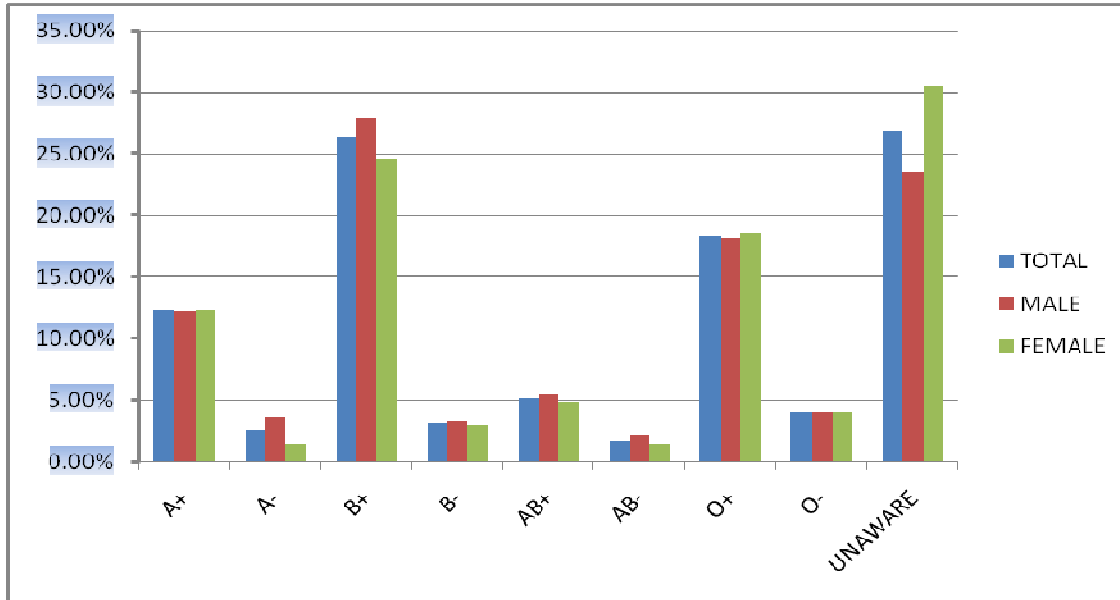
From the survey it is clearly reported that B+ blood group is dominated in the society and it also tells that 26.82% volunteers are unaware of the their blood group

Table.1

B+>O+>A+>AB+

BLOOD GROUPS	TOTAL		MALE		FEMALE	
	n	%age	n	%age	N	%age
A+	79	12.24%	41	12.20%	38	12.29%
A-	16	2.48%	12	3.57%	04	1.29%
B+	170	26.35%	94	27.97%	76	24.59%
B-	20	3.10%	11	3.27%	09	2.90%
AB+	33	5.11%	18	5.35%	15	4.80%
AB-	11	1.70%	07	2.08%	04	1.29%
O+	118	18.29%	61	18.10%	57	18.44%
O-	25	3.87%	13	3.86%	12	3.88%
UNAWARE	173	26.82%	79	23.50%	94	30.42%
TOTAL	645		336		309	

Graph showing distribution of Blood groups among male and female of the selected population



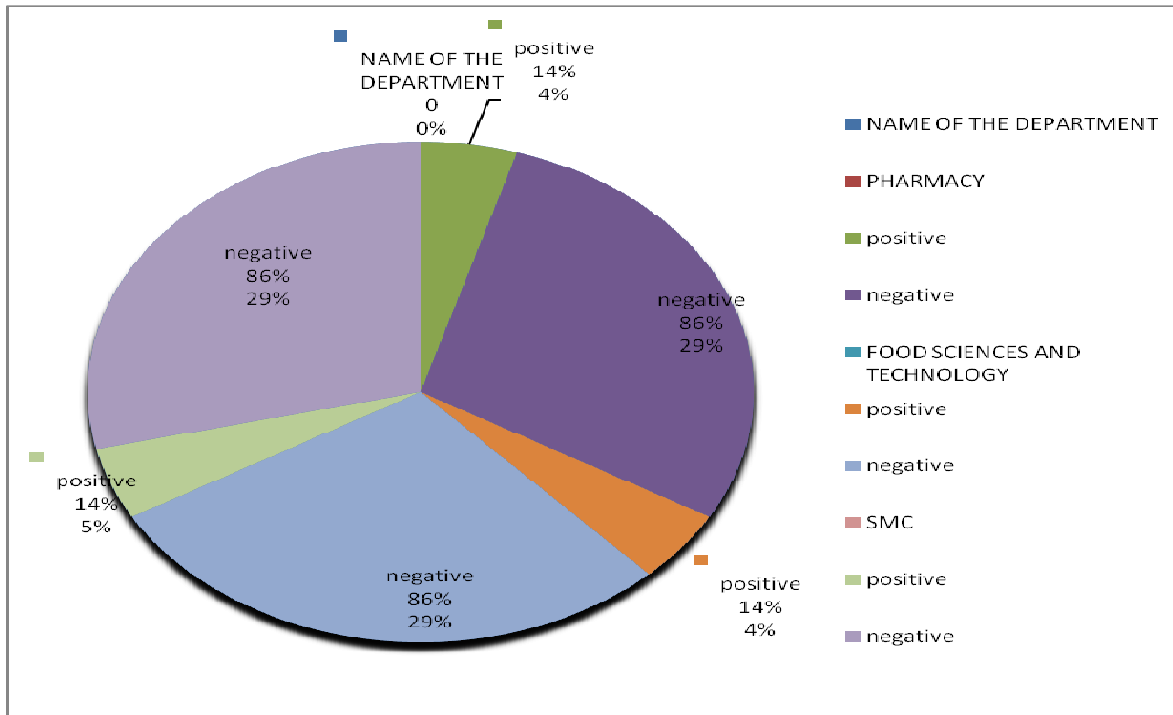
Health consciousness among the selected Population

The results shows that even being part of medical community most of the students were unconscious about their health

Table.2

<u>NAME OF THE DEPARTMENT</u>	<u>MEDICAL CHECKUP (+/-)</u>	<u>REGULAR EXERCISE (+/-)</u>	<u>DIET (BALANCED/UNBALANCED)</u>	<u>RESTING HOURS (+/-)</u>
<u>PHARMACY</u>				
positive	14%	28%	50%	ALMOST 90%
negative	86%	72%	50%	ALMOST 10%
<u>FOOD SCIENCES AND TECHNOLOGY</u>				
positive	14%	21%	57%	ALMOST 90%
negative	86%	79%	43%	ALMOST 10%
<u>SMC</u>				
positive	14%	28%	64%	ALMOST 90%
negative	86%	72%	36%	ALMOST 10%

Pie chart showing ratio of health consciousness among the selected population



Discussion

The objective of the study was to determine the distribution of blood groups, and health consciousness in the selected students of University of Sargodha.

The need for blood group prevalence study is not only important for transfusion medicine but also for organ transplantation and genetic research (1). The frequency of AB blood group was much higher in the inhabitants of medieval Ras than in the inhabitants of Ras region of 20th century (1).

In the study under discussion the relative percentage of various blood groups does not seem to deviate from those which have been recorded in past for most of the Pakistani regions. The study has demonstrated that phenotypically there was dominance of B+ blood group. Yousaf-et-al in their study from Bahawalpur showed the same prevalence of blood group what we have documented (9). From India also the same prevalence of ABO blood groups was reported as in our study (10). It is well known that blood groups are associated with several diseases like cardiovascular and erythroblastosis in neonates. A study carried out in five governorates of Gaza strip show that Overall blood group-O was the highest (38.1%) among both Rh positive and negative subjects, while the AB blood group was the lowest (7.5%). In each governorate of Gaza–Strip, the blood group-O was the highest with the exception of Gaza city and Rafah, where the blood group-A was the highest in subjects who have the D antigen which is in contrast to our

study (11). Blood group O is a risk factor for duodenal ulcer (10) while peoples with Blood group B have high risk of diabetes which is common in our society. Coronary artery diseases (CAD) are also common but its risk is same in all blood groups. A study from Bannu NWFP described ABO blood group distribution as B, A, O and AB as (36.23%), (31.03%), (25.07%) and (7.67%) respectively(14). A study from Punjab revealed blood group frequency as B group (32.4%), O group (30.50%), A group (22.60%) and group AB (8.60%)(16). The results of both these studies are similar to our study results. The other part of our study ponder on Health Consciousness

It is defined as “informational capacity of the system (in the case human being) that is, the ability of the system to interact with the environment”.

In our study, we choose science people to know about their health consciousness. in the study under discussion it was showed that despite being science students they were unaware of their health which, a very low percentage is keen about their healthy activities which can lead them to different diseases like obesity ,thrombosis, heart failure etc which show us that our society will just be a mare burden on the world because our health saver s are themselves unaware of that healthy prospects of life. A seminar style course for Honors Scholars Program students at the University of Cincinnati was presented in Fall, 2002, entitled Dimensions and Directions in Health: Choices in the Maze. A focus of this course was the relationship between lifestyle choices, behavior and health status. The students were relatively unaware of this relationship even though they were health science students. These results seem to be similar with our results. (17).

From this study it was concluded that B+ blood group is the dominant blood group type in our society and most of the educated peoples were unconscious about their health

Recommendation

On the basis of the study we recommend to the University of Sargodha, Higher education commission Pakistan and government of Pakistan to conduct health awareness programs in educational institute for the motivation of students to adopt healthy activities.

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